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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,244	07/11/2003	Shinya Narumi	2271/69840	4620

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EXAMINER

GOMA, TAWFIK A

ART UNIT	PAPER NUMBER
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2653

DATE MAILED: 02/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/618,244		NARUMI ET AL.	
	Examiner		Art Unit	
	Tawfik Goma		2653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2, and 5-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Miyake et al (US Patent 6580684).

Regarding claim 1, Miyake et al (US Patent 680684) disclose an optical information recording medium (figs. 1-5), comprising: a transparent substrate having one of concentric-circle guide grooves and a spiral guide groove (col. 9 lines 59-61); and a phase-change recording layer (col. 11 lines 6-20), on the transparent substrate, which generates a phase-change by being exposed to a laser beam which emission is controlled at where recording marks and spaces between the recording marks (col. 11 lines 19-24) both having duration "nT", in which "n" expresses nonnegative integer, and "T" expresses a reference clock period (col. 8 lines 21-29 and fig. 54), are to be marked, using Pulse Width Modulation (fig. 54), so as to record, erase, and rewrite information (CD-RW, fig. 54), wherein the optical information recording medium has

recording conditional information pre-formatted thereon (fig. 13), which includes parameters of a plurality of multi-pulse patterns having different applied liner velocity ranges and information regarding liner velocities capable of recording with each of the multi-pulse patterns (Erasing/Recording power ratio and rate, fig. 13 and col. 12 lines 32-37), and the multi-pulse patterns are combinations of a heating pulse (Pwr, fig. 54) and a cooling pulse (Pwc, fig. 54), which specify a light emission waveform of the laser beam (fig. 54).

Regarding claim 2, Miyake further discloses wherein the conditional information further includes parameters of test recording corresponding to each of the multi-pulse patterns (col. 17 lines 43-52). Miyake discloses a target power for lowest and highest recording velocity as well as erasing/recording rate at those velocities. The test recording adjusts the power until the target is reached.

Regarding claim 5, Miyake further discloses wherein the recording conditional information is encoded with a wobble of the guide groove (col. 12, 32-37).

Regarding claim 6, Miyake further discloses wherein the wobble information is encoded using a frequency modulation of the wobble (col. 11 lines 66-67 thru col. 12 lines 1-3)

Regarding claim 7, Miyake further discloses wherein the wobble information is encoded using a phase modulation of the wobble (col. 12 lines 22-31)

Regarding claim 8, Miyake further discloses wherein the recording conditional information is encoded in a lead-area on the optical information recording medium (col. 2 lines 50-60).

Regarding claim 9, Miyake further discloses wherein the recoding conditional information is encoded in one of a part on the inner radius side of an information recording area and a part on an inner radius side of a test recording area, on the optical information recording medium (Lead-in, fig. 55). Figure 55 shows the lead-in area, which contains the conditional information, is recorded on an inner radius side of a program area.

Regarding claim 10, Miyake further discloses wherein the recording conditional information is encoded in one of a part on an outer radius side of an information recording area and outer radius side of a lead-out area, and a part on outer radius side of a outer peripheral part of a test recording area, on the optical information recording medium (fig. 55, fig. 47). Figures 47 and 55 show that the lead-in area which contains the conditional information can be located on an outer radius side of a outer peripheral part of a test recording area and of both a program area and lead out area.

Regarding claim 11, Miyake further discloses wherein the recording conditional information is encoded in a part of an information recording area, on the optical information recording medium (col. 2 lines 40-44).

Regarding claim 12, Miyake further discloses wherein the recording conditional information is written as code in a part of a surface of the optical recording medium (col. 2 lines 40-44 and col. 11 lines 19-24). Miyake discloses that subcode data is recorded on the recording layer which is on a surface of the recording medium.

Regarding claim 13, Miyake discloses everything regarding the recording medium (see claim 1 above). Miyake further discloses reading the pre-formatted

recording conditional information (F202, fig. 50), comparing the conditional information from the disc with recording conditional information of the optical information recording apparatus regarding performances including recordable linear velocity (fig. 37 and col. 23 lines 54-67). Miyake compares the bit pattern read for the disc with a table stored in the apparatus to correlate the information on the disc with that stored in the apparatus as well as comparing the velocity with a reference velocity of the apparatus and outputting an adjustment error signal (col. 27 lines 55-60). Miyake further discloses selecting a recording conditional information satisfying a desired optimum condition based on the result of comparing (F203, fig. 50 and col. 4 lines 31-44) and generating a multipulse pattern used for specifying a light emission waveform of a laser beam (fig. 54 and col. 4 lines 31-35 and col. 28 lines 56-60)

Regarding claims 14 and 15, Miyake further discloses performing a test recording onto the optical information recording medium based on parameters of the test recording which is also pre-formatted as the recording conditional information (col. 17 lines 43-52), corresponding to the generated multipulse pattern, so as to determine emission power of the heating pulse in accordance with the result thereof (col. 28 lines 66-67 thru col. 29 lines 1-5).

Regarding claim 16, Miyake further discloses a method for determining a recording condition according to claim 13, wherein the desired optimum condition is a condition realizing the highest liner velocity among recordable conditions selected based on the result of comparing (fig. 13 and col. 27 lines 55-60).

Regarding claim 17, Miyake further discloses wherein the desired optimum condition is a condition realizing the highest liner velocity among recordable conditions selected based on the result of comparing, with a specific multi-pulse pattern (col. 27 lines 55-60). The pulse pattern is set and used to record information prior to the comparing of the velocity with the reference velocity and adjusting using the error signal.

Regarding claim 18, Miyake further discloses wherein the desired optimum condition is any recordable condition selected based on the result of comparing, with a specific liner velocity (col. 28 lines 56-60).

Regarding claim 19, Miyake further discloses wherein the desired optimum condition is a condition realizing the highest stability among recordable conditions selected based on the result of comparing (col. 28 lines 56-60).

Apparatus claims 20-26 are drawn to the apparatus corresponding to the method of using same as claimed in claims 13-19. Therefore, apparatus claims 20-26 correspond to method claims 13-19, and are rejected for the same reasons of anticipation as used above.

Claims 20-26 have limitations similar to those treated in the above rejection(s), and are met by the references as discussed above. Claim 20 however recites the following limitations, which are further disclosed by Miyake: a rotation controller (6, fig. 48), a light source (4, fig. 48), a light source driver (18, fig. 48), a reader (23, fig. 48), a comparing mechanism (10, 21, fig. 48), a selecting mechanism (10, fig. 48), a pulse

pattern generator (21, fig. 48), an emission waveform controller (19, 21, fig. 48), and a speed controller (17, fig. 48).

Further regarding claims 21, and 22, Miyake discloses test recording and determination as discussed above (see claims 14-15 above). Miyake's apparatus inherently contains mechanisms to perform the functions disclosed.

Regarding claim 27, Miyake discloses everything regarding the apparatus (see claims 13 and 20 above) and the format of the recording medium (see claim 1 above). Miyake further discloses that the apparatus is an information processing apparatus (col. 7 lines 32-55).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyake et al (US Patent 6580684).

Regarding claim 3, Miyake discloses everything as applied above (see claim 1). Miyake further discloses wherein one of the multipulse patterns is a 2T pulse pattern (e, fig. 54) and that the pulse width is adjusted according to the characteristics of the recording medium (col. 33 lines 50-61). Miyake fails to disclose wherein one of the multipulse patterns is a 1T and another one of the multipulse patterns is a 2T cycle. However, it is obvious that the pulse patterns used can be both a 1T or a 2T cycle

Art Unit: 2653

depending on the characteristics of the medium. The rationale is as follows: It is obvious that both a 1T and 2T multi-pulse pattern are used by Miyake in order to adjust the pulse widths to correspond to the characteristics of the recording medium and control the heat accumulation and dissipation (see col. 34 lines 14-19). Miyake discloses that the characteristics corresponding to the recording material are read throughout the disc and can be different (col. 4 lines 55-65), and these characteristics are used to control the multi-pulse width.

Conclusion


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nakajo (US Patent 6504806) discloses an optical disc recording apparatus that sets the recording strategy based on disk type/recording velocity information read from the disc.

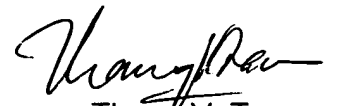
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tawfik Goma whose telephone number is (571) 272-4206. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2653

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Tawfik Goma
2/2/2006


Thang V. Tran
Primary Examiner
2/2/2006